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CLAIMS

What is claimed is:

5 A method for operating a data sharing application in a peer-to-peer network, wherein the application executes on a source node, the method comprising:

establishing a connection between the source node and a target node in the peer-to-peer network;

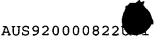
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receiving node characterizing data from the target 10 node; and

displaying the node characterizing data within the application at the source node.

- 15 The method of claim 1 further comprising: automatically requesting the node characterizing data_from-the target node in response to establishing a connection with the target node.
- 20 The method of claim 1 wherein the node characterizing data contains an optimal connect schedule.
 - The method of claim 1 wherein the node 4. characterizing data contains an information classification for data available to be shared by the target node.
 - The method of claim 1 wherein the node characterizing data contains information topology data associated with a node connected to the target node.

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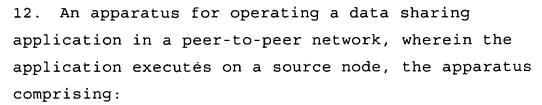


- The method of claim 1 wherein the node characterizing data contains information topology data associated with nodes connected to the target node.
- 5 The method of claim 6 wherein the information 7. topology data is derived from nodes within a specified number of links from the target node.
- 8. The method of claim 1 wherein the node 10 characterizing data contains connection load data for the target node.
 - 9. The method of claim 8 wherein the connection load data relates to node fan-out or node fan-in at the target node.
 - The method of claim 8 wherein the connection load data relates to a maximum connection load at the target node.
 - The method of claim 8 wherein the connection load data relates to a current connection load at the target node.

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establishing means for establishing a connection between the source node and a target node in the peer-to-peer network;

receiving means for receiving node characterizing data from the target node; and

10 displaying means for displaying the node characterizing data within the application at the source node.

- 13. The apparatus of claim 12 further comprising:
 requesting means for automatically requesting the
 node characterizing data from the target node in response
 to establishing a connection with the target node.
- 14. The apparatus of claim 12 wherein the node characterizing data contains an optimal connect schedule.
 - 15. The apparatus of claim 12 wherein the node characterizing data contains an information classification for data available to be shared by the target node.
 - 16. The apparatus of claim 12 wherein the node characterizing data contains information topology data associated with a node connected to the target node.

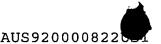
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- 17. The apparatus of claim 12 wherein the node characterizing data contains information topology data associated with nodes connected to the target node.
- 5 The apparatus of claim 17 wherein the information topology data is derived from nodes within a specified number of links from the target node.
- The apparatus of claim 12 wherein the node 10 characterizing data contains connection load data for the target node.
 - The apparatus of claim 19 wherein the connection load data relates to node fan-out or node fan-in at the target node.
 - The apparatus of claim 19 wherein the connection load data relates to a maximum connection load at the target node.
 - The apparatus of claim 19 wherein the connection load data relates to a current connection load at the target node.

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23. A computer program product on a computer readable medium for use in a data processing system for operating a data sharing application in a peer-to-peer network, wherein the application executes on a source node, the computer program product comprising:

instructions for establishing a connection between the source node and a target node in the peer-to-peer network;

instructions for receiving node characterizing data from the target node; and

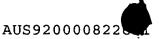
instructions for displaying the node characterizing data within the application at the source node.

The computer program product of claim 23 further comprising:

instructions for automatically requesting the node characterizing data from the target node in response to establishing a connection with the target node.

- 20 The computer program product of claim 23 wherein the node characterizing data contains an optimal connect schedule.
- The computer program product of claim 23 wherein the 25 node characterizing data contains an information classification for data available to be shared by the target node.
- The computer program product of claim 23 wherein the node characterizing data contains information topology 30 data associated with a node connected to the target node.

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- The computer program product of claim 23 wherein the node characterizing data contains information topology data associated with nodes connected to the target node.
- 5 The computer program product of claim 28 wherein the information topology data is derived from nodes within a specified number of links from the target node.
- The computer program product of claim 23 wherein the 10 node characterizing data contains connection load data for the target node.
 - The computer program product of claim 30 wherein the connection load data relates to node fan-out or node fan-in at the target node.
 - The computer program product of claim 30 wherein the connection load data relates to a maximum connection load at the target node.
 - The computer program product of claim 30 wherein the connection load data relates to a current connection load at the target node.